GEOGRAPHY IN AMERICA

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The time has arrived when there should be a great awakening in the teaching of geography in America, and that teaching must go far beyond what most grown people remember as geography. This nation has enjoyed a long period of remarkable internal development. The population has increased from 1,000,000, at the time of the American Revolution, to nearly 100,000,000. The people have spread slowly from the Atlantic to the Pacific. Thousands have poured in from the overcrowded countries of Europe. Much of the land in the United States has passed into private ownership. Railways have been built, telephone and telegraph lines erected, until, as a great network, they bind the different parts of the nation together.

The best harbors have led to the establishment and growth of great sea ports. The immense supplies of fuel and water power in the northeastern section have hastened industrial development. The rich soils with adequate rainfall in the south and in the Mississippi Valley have favored the development of wonderfully prosperous agricultural districts. The drier plains farther west have been found suitable for grazing and certain types of farming, while the high western mountains are storehouses of great mineral wealth.

America's Growth from Isolation to Expansion

But the period of isolation has ended. Industries have been established and plans for manufacture developed on so large a scale that our merchants are seeking new markets for their products. They are also seeking new sources of raw material, so that they may continue to expand and promote those enterprises.

This nation has entered upon a period of maritime expansion. Thousands of new American vessels will be available soon, and a remarkable commercial development is certainly coming. The business men must have representatives in distant parts of the world. More young men will be sent to other countries. They should be specially trained in economic and commercial geography.

The great world war has forced us to take a prominent part in the politics of the world. Young men will be called upon more and more to go into government service in foreign lands. As officials they should be well posted upon conditions in all parts of this country before they attempt to represent us. They must deal fairly and intelligently with other peoples. To do that they must know the conditions under which those people live, their resources, and their economic and commercial possibilities. They must know the needs and the ambitions of the people with whom they deal.

Value of Geography in the War

A broad study of the geography of the world with the emphasis on human geography is fundamental to an understanding of living conditions in any land. The study must be pursued as a science so that knowledge of the physical features, the climate, and natural resources may be definite and exact. Men must understand the influence of these great geographic factors upon human affairs.

The reading of maps will play a more and more important part in the study of geography. Every officer in the American Army is trained to make and to read maps. All enlisted men receive some training in map making and map interpretation. Every campaign on the Western Front was worked out on maps, and special maps were prepared for the men to follow in each battle. More than 100,000 young men, members of the Students' Army Training Corps in the colleges and universities, were required to pursue courses of instruction in map making or map reading. Every discussion of the causes of the war calls for a knowledge of geography. Writers on the diplomatic background, on the history which has led up to the war, on the possible changes which may follow it, rely upon a knowledge of geography for many of their conclusions.

The closing of the Dardanelles by the Germans in 1914 did more than any other single act to weaken the Russian army and lead to its collapse. The route from the Black Sea to the Mediterranean is the one exit from the rich productive area of European Russia which is free from ice throughout the year. Nine-tenths of the imports and exports of that great agricultural land passed through the Sea of Marmara. When that route was closed most of the commerce of Russia was stopped. War supplies, and especially munitions, could not be imported. The situation became worse and worse, and assisted in bringing on the great collapse.

The coal, iron, lead, and zinc of the Rhine Province have been of first importance to German industrial life and have made it possible for her to continue the war. Without Lorraine industrial Germany would be powerless unless she could get iron from some other country.

The leading French geographers were attached to the Service Géographique de l'Armée, serving the fighting forces. New maps were prepared almost daily. At the battle front airplane pictures served as a basis for mapping enemy territory. An enemy trench dug during the night was photographed from the air, the next morning placed accurately upon a map, the map reproduced, and the revised edition was in the hands of the commanding officer by noon of that day.

The British Army has a force known as the Geographical Section of the General Staff. This force has prepared, among many other maps, a special relief model of the Western Front.

Topographic features in the battle line played a most important rôle. The great east-facing escarpments in the Paris Basin served as natural

defenses against the enemy. Hundreds of thousands of men were sacrificed by the Central Powers in their attempts to storm the escarpment east of Verdun. The topographic position of the Chemin des Dames line and of Laon gave them their military significance.

The fact that there is but one main route to follow in crossing the Ardennes, the narrow canyon of the Meuse, made the situation for large armies that were forced to retreat in that direction very critical.

The American Army has now commissioned a number of trained geographers. They are on duty in the Military Intelligence Branch. Individual geographers and geographical societies are serving the government. The National Shipping Board has trained geographers on its staff. In their work a knowledge of the economic and commercial geography of the world is indispensable. The call from the government for trained geographers has gone beyond the present supply.

The entire public is being trained to read maps. Almost every edition of the newspapers contains some form of map. Magazine articles never contained more maps than at present, and publishing houses are issuing special maps for homes, schools, and offices.

Climatology in the War

Every change in wind direction at the battle fronts was watched most carefully. Gentle breezes were first utilized by the Germans to carry deadly gases over the trenches of the Allies. Later the Germans may have somewhat regretted the introduction of that type of warfare, for most of the gentle breezes suitable for carrying gases come from the west and blow into their own territory.

Every one of the great campaigns on the Western Front was timed with regard to the general climatic conditions. The movement of a cyclone, or low-pressure area, over the fields of battle usually brings unfavorable conditions for a great attack. Rains may cause rivers to be flooded, roadbeds to turn to mud, and the movement of heavy guns to be delayed. The approach of a high-pressure area, or anti-cyclone, usually means a few days of fair weather with clear skies. The weather changes on the Italian front have been of most notable significance. When the heavy winter snows came, the Austro-German advance through the mountains was absolutely stopped. With each great melting of snows and with each heavy rainfall in the Alps, the streams in the lowlands of the Po are flooded and become serious barriers to an advancing army. Every student well trained in modern geography should understand the climates of the world and the common weather changes and have some ability to forecast weather.

Data Needed for Peace Conference

The members of the peace conference will demand a vast amount of geographical data. They should be experts on the geography of Europe.

The distribution and amount of natural resources, the nature and possibilities at certain seaports, the political boundary lines, the distribution of nationalities, the rivers, canals, and all highways of travel in and about Europe are of prime importance in the equitable solution of national problems and the adjustment of conditions so that each people may promote industry and commerce to the best advantage. We look forward to an improvement in living conditions throughout the world.

Need for the Extension of Geographic Study

There never was a time when so many of the people in the world were really interested, perhaps unconsciously, in geography; but the organization of geographic information and of plans for the improvement and extension of the teaching of geography in America calls for a definite program. Geography should be taught in every high school, every normal school, every college, every university. There is a phase of geography, as well as a part of history, or a branch of mathematics, or a language study, that is appropriate for each stage in the training of students. The science of geography deals with many of the fundamental controlling factors in the activities of people. If we wish to know the peoples of the world, we must know the geography of the world.

It has been a great mistake in American educational work that the study of geography for most people stopped at the close of the seventh or eighth grade. That has meant that few people have studied geography since they were eleven or twelve years old. Some have gone on into the high school, the normal school, or the college only to discover in their higher education that they needed a knowledge of geography which they did not have. There was no opportunity for them to pursue that work. Normal schools have given more attention to the teaching of geography than any other institutions above the grammar schools, but there the emphasis has been laid on how to teach geography. Their task has been to train teachers to go into the elementary and grammar schools to teach the elements of geography.

If we stop the teaching of geography at the close of the seventh or eighth grade, we stop that study before the child is sufficiently mature to understand the technical phases of the subject and before he is sufficiently mature to appreciate many of the larger problems of geographic influences upon life. We stop before we can expect to have the fruits of geographical instruction in our educational system. We stop short of getting from the study of geography what the nation and educators might well demand of it.

Geography in the Colleges

Furthermore, this system has meant that those who have gone into the elementary and grammar schools to teach geography knew little, if any, more than they had learned while they were in those schools themselves. The condition is quite different in the case of history or mathematics or

language studies. In those great fields of educational work there have been opportunities for advanced study in high school and college. Geography has been sadly neglected by the colleges and universities in America. There are, indeed, a few of the higher institutions where some attention has been given to geography, especially in the last few years. The results of their work are just beginning to be felt.

In some of the colleges the work offered has been in the technical branches of physiography and meteorology. The more human phases of geography should be added. Climatology should be emphasized; economic and commercial geography taught; regional geography, the influence of geography upon history, and anthropogeography should be developed as college courses of instruction. Research work in each of those lines should be encouraged. Map making should be developed in this country. We should not be compelled to use foreign atlases for the best maps.

Geography in Foreign Universities

In France each of the universities has a large department of geography. At the University of Paris there is a staff of eight specialists giving their full attention to this field of study. The great English universities are similarly equipped, and so are the German universities. Dr. Chisholm in a recent article[1] states that in 1917 the University of Liverpool established a professorship in geography and that a new chair of geography and anthropology has been founded at the University College of Wales, Aberystwith. The president of the Royal Geographical Society in an address last May commended the examples set by the Universities of Oxford and Cambridge in proposing that geography be included in the subjects for a degree in honors. Dr. Chisholm further states: "At Edinburgh University a degree of Bachelor of Commerce has just been established, and in the studies for this degree geography is made obligatory at one stage and is among the optional subjects at a more advanced stage." Similar progress has been made in Austria, Switzerland, Italy, Denmark, and the Netherlands. Those foreign nations have appreciated before we have the necessity of advanced and research work in geography, of opportunities for those who go into commercial life, into diplomatic service, or into teaching, to be well trained in geography.

Need of Trained Teachers

In the education of children the problem is to select wisely from a vast amount of knowledge and information that which is most suitable for the training of the children at each particular stage. The teacher should be a master of the field which he or she intends to draw upon for information in the organization of a course of study. When that teacher enters the classroom her thought, or his thought, should not be given entirely to the

[1] G. G. Chisholm: Geography in British Universities, *Journ. of Geogr.*, Vol. 17, 1918, No. 2, p. 77.

subject matter to be used. The teacher's thought should be on the development of the children. That demands a well-trained teacher, it demands a broadly trained teacher, and it demands that the teacher know more about the subject matter than he or she is expected to teach.

The case is perfectly clear that we have neglected geography in America. The teachers in that field appreciate the fact. They hope to arouse a greater interest in the teaching of the subject, and they deserve recognition, they deserve encouragement. Thy are organized as a National Council of Geography Teachers, hoping to waken a greater public interest in geography, to indicate to the higher institutions of learning that more geography should be taught, and to encourage educational administrative officers to assist in promoting and improving the teaching of geography in our common schools.

When 2,000,000, and possibly more, Americans return from very active life in Europe, their interest in foreign lands will be exceedingly keen. Each one of them will spread that interest to a circle of friends, and a strong demand will come from that source for more and better teaching of geography to the next generation.

All the universities and all the colleges in America should open departments of geography as fast as adequately trained instructors can be furnished. Those that now have departments of geography should expand those departments, should man and equip them so that American universities may have departments of geography as good as those in any other country in the world. Those universities that have made a start, that have departments of geography now established, should be taxed to the utmost in the training of instructors to fill the demand from the colleges and universities where the subject is yet unrecognized in their curricula. There are plenty of young people who would take up this field of work as a profession if American colleges and universities recognized it by positions in their faculties.

A Wider Knowledge Needed

All young people in America should be thoroughly trained in the geography of their own country. This must be more than bounding states, naming capitals, or simply reciting facts about the earth. They must understand how geographic factors control life. Each generation of young people in this country should have an opportunity to know the geography of the world. They should be trained in the interpretation of geographic facts, trained to understand how geography has influenced history, how geographic factors almost always determine the economic and commercial activities of a people. The time has come, when we, as a people, should understand, as never before, that we must *know the geography of the world.*

We have been awakened to an appreciation of the great wealth of natural resources in this country. The formation of the mineral deposits has taken

thousands, perhaps millions, of years; most of our soils are millions of years old; all of the coal, all of the natural oils and gases are millions of years old. Forests are slow in growth. Some persons realize the necessity of wise conservation, but it becomes increasingly important that each new generation appreciate the significance of conserving our natural resources so that the industrial and commercial life of the nation may continue.

Our young men and women should know the great outstanding facts of geography which have influenced the expansion of civilization from the earliest days of Grecian culture. The famous explorers who have assisted in mapping out the lands and the seas came chiefly from Western Europe. That part of the world became somewhat crowded by the close of the fourteenth century. Its merchants wanted the products of distant lands, and they had goods to send in exchange. Little by little, through the last four hundred years of geographical explorations, we have come to know almost all the lands on the earth. A few islands may yet be discovered, and other portions of Antarctica may be explored. There are a few densely forested areas and a few desert lands that have not as yet been visited by white men, but we have a command of the essential facts regarding the habitable portions of the earth.

The great routes of emigration have been from Western Europe into each new land as it was discovered. The Americas have been and are being rapidly developed. They are the lands of political independence where the great republics of the world have been developed. In South America there are but three small countries, British, Dutch, and French Guiana, that are not independent. Africa was the last continent to be appropriated. Fifty years ago our geographies showed most of that land as unexplored. Today there are boats above the falls in the great rivers, railroads have been built, and most of that continent has been divided among the European nations. There are now but two small independent nations in Africa.

Asia is the land where most of the people of the world live, a land of ancient civilizations where old customs have persisted and where Europeans and Americans have not until recently been very welcome. About the middle of the last century Japan adopted the ways of the Western world and since then has taken a conspicuous part in the commerce and politics of the world. China is now undergoing a rapid transformation from a closed to an open country. During the twentieth century the Chinese people, numbering about 400,000,000, will certainly develop their great natural resources. They will become an industrial nation, and that will lead them promptly to a world commerce.

Ships on the Indian and Atlantic Oceans have already become so numerous that definite routes must be assigned to certain lines of steamships to reduce the chances of collision. Today commerce in the Pacific is increasing at an extraordinary rate.

The Problem of Living at Peace with the World

Most of the world has been explored, and most of its habitable lands have been appropriated by the several nations. The great problem confronting us today is how all peoples may live in peace. What economic and commercial relations can be fairly established? Each people should have the opportunity to develop its own natural resources, to produce in abundance what it can best produce, and to trade freely with other peoples. We have learned as citizens of the several states to live together, and each year we endeavor to improve, in some peaceful way, the political and economic conditions in this country. We now have with other nations of the world the larger problem of establishing and maintaining equitable relations between all peoples of the earth. Every aspect of our military, industrial, commercial, political, and educational life reflects the importance of an awakening in the teaching of geography.